

Features

- Offers very good resistance to corrosion in various atmospheric conditions, including marine and chemical environments.
- The 5% tin content in the alloy contributes to superb spring properties, making it ideal for components requiring elasticity.
- It possesses high standard mechanical properties and high fatigue resistance, suitable for demanding applications.
- The material can be extensively cold worked and formed into various shapes.
- Excellent Joining Properties: It has excellent soldering, brazing, and butt-welding capabilities.
- Low Coefficient of Friction & High Wear Resistance: These properties make it suitable for applications involving movement and friction, such as bearings and gears.

RS PRO Phosphor Bronze (PB102) Round Bar

L:1000MM X DIA: 1.1/4IN

RS Stock No: 0764176



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product Description

RS PRO Phosphor Bronze (PB102) Round Bar

The RS PRO Phosphor Bronze (PB102) Round Bar is a durable, corrosion-resistant rod suitable for various engineering applications like bearings, gears, and springs.

Key Features:

- **Low Magnetic Permeability:** This feature makes it useful for certain electrical and instrumentation components.
- **Machinability (Poor/Fair):** While rated as poor compared to free-machining brass (around 20-25%), it offers reasonable machinability for a phosphor bronze alloy.
- **Corrosion Resistance:** Superior, almost equivalent to aluminum bronzes in many atmospheric conditions.

Applications:

- Bushes and bearings (especially those with heavy loads).
- Gears and worm gears.
- Springs and spring washers.
- Pump and valve components.
- Fasteners, connectors, switches, and electrical components.
- Marine and chemical hardware

General Specifications

Material	PB102
Form	Round Bar
Length	1000MM
Rod Diameter	1.1/4IN
Tensile Strength	420 N/mm ²
Hardness	120 HB (Brinell Hardness)

Mechanical Properties

Density	8.85 g/cm ³
Melting Point	930 °C
Modulus of Elasticity	121 GPa
Thermal Conductivity	63 W/m.K
Electrical Resistivity	0.096 x10 ⁻⁶ Ω.m

Similar Products

RS Code	Rod Diameter	Length
0764171	1.1/2IN	1000MM
0764172	1IN	1000MM
0764173	1.3/4IN	1000MM
0764174	0.5/8IN	1000MM
0764175	0.3/4IN	1000MM
0764177	0.1/2IN	1000MM
0764178	2IN	1000MM
0764179	0.7/8IN	1000MM